READ AND KEEP THIS FOR FUTURE REFERENCE

Milwaukee
A SUBSIDIARY OF
Amstar
CORPORATION

# CARE AND OPERATING INSTRUCTIONS

## *HEAVY-DUTY*
# MAGNUM *HOLE-SHOOTERS*

***CAT. NO. 0104-1***
*1/4" 0-2500 RPM*

***CAT. NO. 0124-1***
*1/4" 0-2000 RPM*

***CAT. NO. 0224-1***
*3/8" 0-1200 RPM*

***CAT. NO. 0234-1***
*1/2" 0-850 RPM*

***CAT. NO. 0244-1***
*1/2" 0-600 RPM*

*All tools are for 120 Volts 60 cycle AC only.*

***MAGNUM RIGHT ANGLE DRIVE KIT***
***CAT. NO. 3300-1***

Includes: Magnum 1/2" Hole-Shooter No. 0234-1, Right Angle Drive Unit No. 48-06-2871, Side-Handle with clamp, 9/16" Open End Wrench, Socket Wrench, Chuck Key, Knockout Pin and Heavy-Duty Steel Carrying Case.

**IMPORTANT**—**Before placing tool in operation, record the following information from nameplate.**

**Catalog No.** _____ **Serial Number** _____ **Date of Purchase** _____

MILWAUKEE ELECTRIC TOOL CORPORATION
13135 West Lisbon Road • Brookfield, Wisconsin 53005

THIS SYMBOL ... Milwaukee Amstar ... IS YOUR ASSURANCE

1. That every tool manufactured by MILWAUKEE is produced in accordance with applicable Standards for Safety of Underwriters' Laboratories and American National Standards (ANSI).

2. That compliance with applicable safety standards is assured by independent inspection and testing conducted by Underwriters' Laboratories (UL).

3. That every motorized tool manufactured by MILWAUKEE is fully inspected.

4. That every tool has with it adequate instructions and a list of safety rules for the protection of the user.

**WARNING: When using electric tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury including the following items. Read all instructions and save them for future reference.**

## SAFETY INSTRUCTIONS FOR ALL POWER TOOLS

1. **KNOW YOUR POWER TOOL.** Read owner's manual carefully. Learn its applications and limitations as well as the specific potential hazards peculiar to this tool.
2. **GROUND ALL TOOLS—UNLESS DOUBLE-INSULATED.** If the tool is equipped with a three prong plug, it should be plugged into a three hole electrical receptacle. If an adapter is used to accomodate a two hole receptacle, the grounding ear must be attached to a known ground. Never remove the third prong.
3. **KEEP GUARDS IN PLACE** and in working order.
4. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
5. **AVOID DANGEROUS ENVIRONMENTS.** Don't expose power tools to rain or use in damp or wet locations. Do not use tool in presence of flammable liquids or gases. Keep the work area well lit.
6. **KEEP CHILDREN AWAY.** All visitors should be kept a safe distance from the work area. Do not let visitors contact tool or extension cords.
7. **STORE IDLE TOOLS.** When not in use, tools should be stored in a dry, high or locked-up place—out of reach of children.
8. **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was designed.
9. **USE RIGHT TOOL.** Don't force a small tool or attachment to do the job of a heavy-duty tool. Don't use a tool for a purpose it was not designed for, such as using a circular saw for cutting tree limbs or logs.
10. **WEAR PROPER APPAREL.** No loose clothing or jewelry to get caught in moving parts. Rubber gloves and insulated non-skid footwear are recommended when working outdoors. Wear protective covering to contain long hair.
11. **USE SAFETY GLASSES** at all times. Also, use a face or dust mask if cutting operation is dusty.
12. **DON'T ABUSE CORD.** Never carry the tool by its cord or yank it to disconnect from the receptacle. Keep cord from heat, oil and sharp edges.
13. **SECURE WORK.** Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.
14. **DON'T OVERREACH.** Keep proper footing and balance at all times.
15. **DISCONNECT TOOLS.** When not in use; before servicing; when changing accesessories such as blades, bits, cutters, etc.
16. **GUARD AGAINST ELECTRIC SHOCK.** Prevent body contact with grounded surfaces such as pipes, radiators, ranges and refrigerator enclosures.
17. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form a habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.

18. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean at all times for best and safest performance. Follow instructions for lubricating and changing accessories. Keep handles dry, clean and free of oil or grease. Inspect switches, tool cords and extension cords periodically and have them repaired or replaced by an authorized service facility if damaged. Check moving parts for alignment and binding as well as for breakage and improper mounting. Damaged parts should be repaired or replaced by an authorized service facility unless otherwise indicated in this instruction book. CAUTION: Do not use carbon tetrachloride.
19. **AVOID ACCIDENTAL STARTING.** Don't carry a plugged-in tool with your finger on the switch. Be sure the switch is turned off before plugging in a tool. Do not use a tool if the switch does not turn it on or off.
20. **WEAR EAR PROTECTORS** when using for extended periods.
21. **ACCESSORIES.** The use of any accessories other than what is listed or recommended for this particular tool may be hazardous.
22. **KEEP HANDS AWAY FROM CUTTING EDGES AND ALL MOVING PARTS.**
23. **USE INSULATED SURFACES.** A double-insulated or grounded tool may be made live if the blade or bit comes in contact with live wiring in a wall, floor, ceiling, etc. Always check the work area for live wires and hold the tool by the insulated surfaces when making "blind" or plunge cuts.
24. **GRINDING WHEELS.** Use only grinding wheels with "Safe Speed" at least as high as the no load RPM" marked on the nameplate.
25. **USE SIDE HANDLES** when supplied with tool for control and safety.
26. **STAY ALERT.** Watch what you are doing and use common sense. Do not operate tool when you are tired.

## GROUNDING INSTRUCTIONS

This tool should be grounded while in use to prevent the user from electric shock. The tool is equipped with an approved three conductor cord and three prong grounding-type plug to fit the proper grounding-type receptacle. The green conductor in the cord is the grounding wire. Never connect the green wire to a live terminal. If your unit is for use on less the 150 volts, it has a plug that looks like figure "A". If it is for use on 150 to 250 volts, it has a plug that looks like figure "C".

NOTE

The use of three-prong adapters in Canada is prohibited by the Canadian Electrical Code.

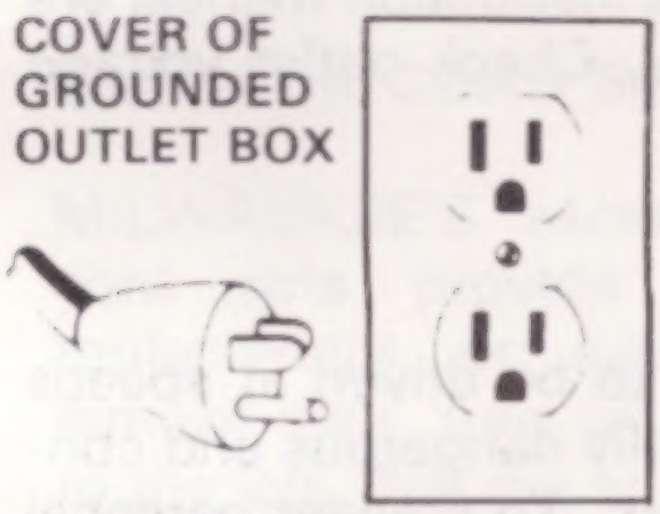



Fig. A

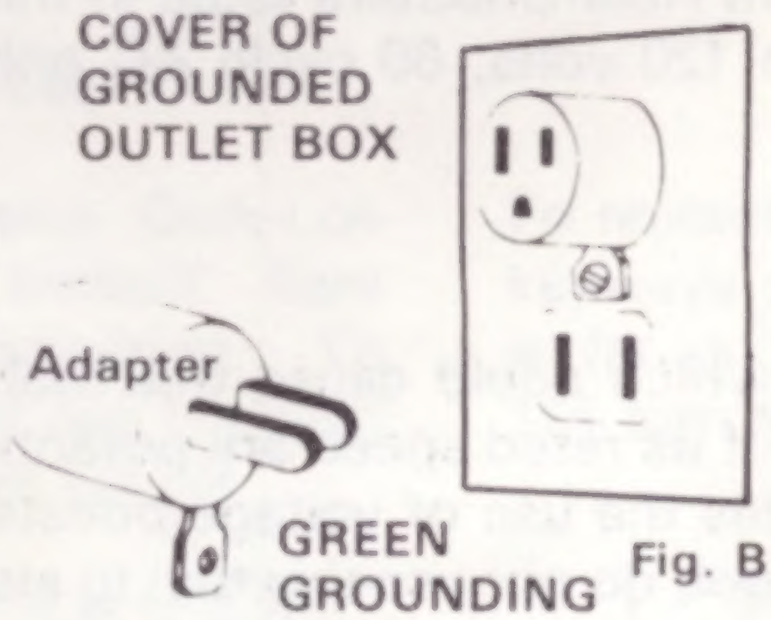



Fig. B

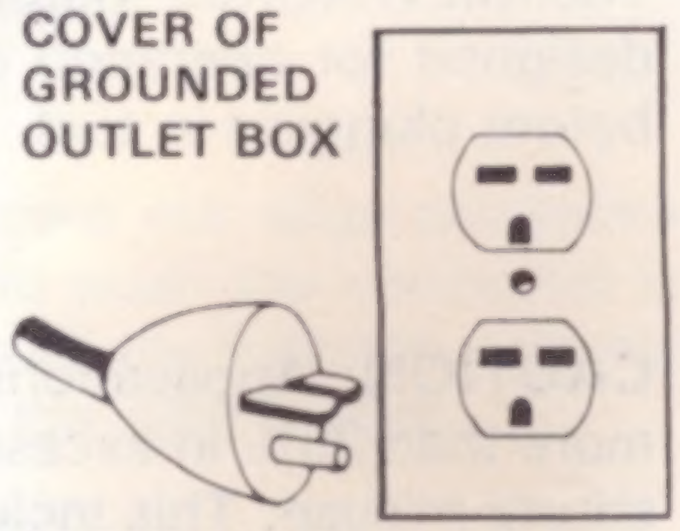



Fig.C.

An adapter, Figure "B", is available for connecting Figure "A" type plugs to two prong receptacles. The green grounding ear or wire extending fron the adapter must be connected to a permanent ground such as a properly grounded outlet box. No adapter is available for Figure "C" type plugs.

NOTE: THE RECEPTACLE MUST BE GROUNDED FOR SAFE USE OF ADAPTER;IF IN DOUBT, CALL A QUALIFIED ELECTRICIAN AND HAVE THE RECEPTACLE CHECKED FOR GROUND.

## EXTENSION CORD CHART

When an extension cord is used, it should also be a 3 wire cord to permit proper grounding of the tool. As the distance from the supply outlet increases, heavier gauge extensions are required. The use of extension cords of inadequate size wire causes a serious drop in voltage, loss of power and possible motor damage. This table is based on limiting line voltage drop to 5 volts at 150% of rated amperes.

| Ampere rating (on Nameplate) | 0-2.00 | 2.10-3.4 | 3.5-5.00 | 5.10-7.0 | 7.10-12.0 | 12.1-16.0 | 16.1-20.0 | |
|---|---|---|---|---|---|---|---|---|
| Ext. Cable Length | Wire Size | | | | | | | |
| 25 Ft. | 18 | 18 | 18 | 18 | 16 | 14 | 12 | |
| 50 Ft. | 18 | 18 | 18 | 16 | 14 | 12 | 10 | |
| 75 Ft. | 18 | 18 | 16 | 14 | 12 | 10 | 8 | |
| 100 Ft. | 18 | 16 | 14 | 12 | 10 | 8 | 8 | Not normally available as flexible extension cord. |
| 150 Ft. | 16 | 14 | 12 | 12 | 8 | 8 | 6 | |
| 200 Ft. | 16 | 14 | 12 | 10 | 8 | 6 | 4 | |
| 300 Ft. | 14 | 12 | 10 | 8 | 6 | 4 | 4 | |
| 400 Ft. | 12 | 10 | 8 | 6 | 4 | 4 | 2 | |
| 500 Ft. | 12 | 10 | 8 | 6 | 4 | 2 | 2 | |
| 600 Ft. | 10 | 8 | 6 | 4 | 2 | 2 | 1 | |
| 800 Ft. | 10 | 8 | 6 | 4 | 2 | 1 | 0 | |
| 1000 Ft. | 8 | 6 | 4 | 2 | 1 | 0 | 0 | |

IF USING AN EXTENSION CORD OUTDOORS, BE SURE IT IS MARKED WITH THE SUFFIX "W-A" ("W" IN CANADA) TO INDICATE THAT IT IS ACCEPTABLE FOR OUTDOOR USE.

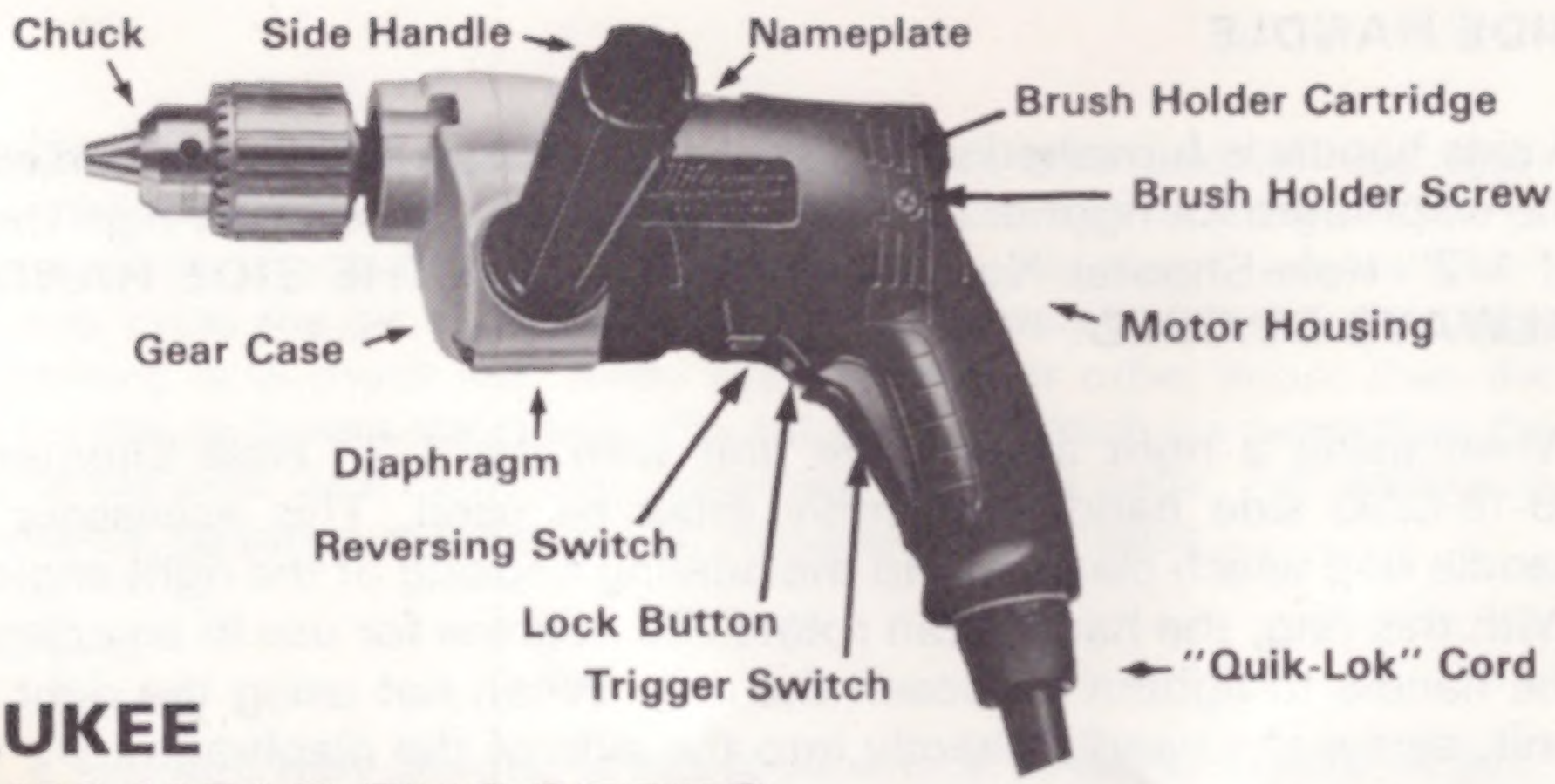
This tool is equipped with MILWAUKEE'S exclusive "Quik-Lok" cord set. Cord sets are available in lengths of 8, 25 and 50 feet and connect directly to the tool's handle (see page 5). The use of additional extension cords with 50 foot Quik-Lok cords is not recommended.

## IMPORTANT

The MILWAUKEE Magnum Hole-Shooters listed in this instruction manual are designed for operation on 120 volts, 60 cycle AC only. Check outlet voltage before plugging in tool.

**CAUTION:** Applications which could cause this tool to be driven at speeds more than 25% in excess of its rated speed are potentially dangerous and constitute misuse. This includes the use of voltage boosters. To prevent personal injury and damage to the tool, do not use this tool to start or drive small engines or other rotating machinery unless specifically recommended in this manual. The Milwaukee Electric Tool Corporation assumes no responsibility for damage or accidents resulting from the misuse of this tool, its misapplication or nonadherence to precautionary safety measures.

**Read All Instructions And Keep Them For Future Reference**




# MILWAUKEE MAGNUM HOLE-SHOOTERS

## ACCESSORY CAPACITY CHART

| DRILL NO. and RPM | WOOD | | | | | STEEL | | MASONRY |
|---|---|---|---|---|---|---|---|---|
| | FLAT BORING BIT | AUGER BIT | SHIP AUGER BIT | SELFEED BIT | HOLE SAW | TWIST DRILL | HOLE SAW | CARBIDE TIP BIT |
| 0104-1 1/4" 0-2500 RPM | 3/4" | — — | — — | — — | 1-1/4" | 1/4" | 7/8" | 1/4" |
| 0124-1 1/4" 0-2000 RPM | 1" | — — | — — | — — | 1-3/4" | 1/4" | 1" | 3/8" |
| 0224-1 3/8" 0-1200 RPM | 1-1/2" | — — | 3/4" | — — | 2-3/4" | 3/8" | 1-3/16" | 7/16" |
| 0234-1 1/2" 0-850 RPM | 1-1/2" | 7/8" | 7/8" | 1-1/8" | 3-1/4" | 1/2" | 1-3/8" | 1/2" |
| 0244-1 1/2" 0-600 RPM | 1-1/2" | 1-1/8" | 1-1/8" | 1-3/8" | 3-1/2" | 1/2" | 1-1/2" | 9/16" |

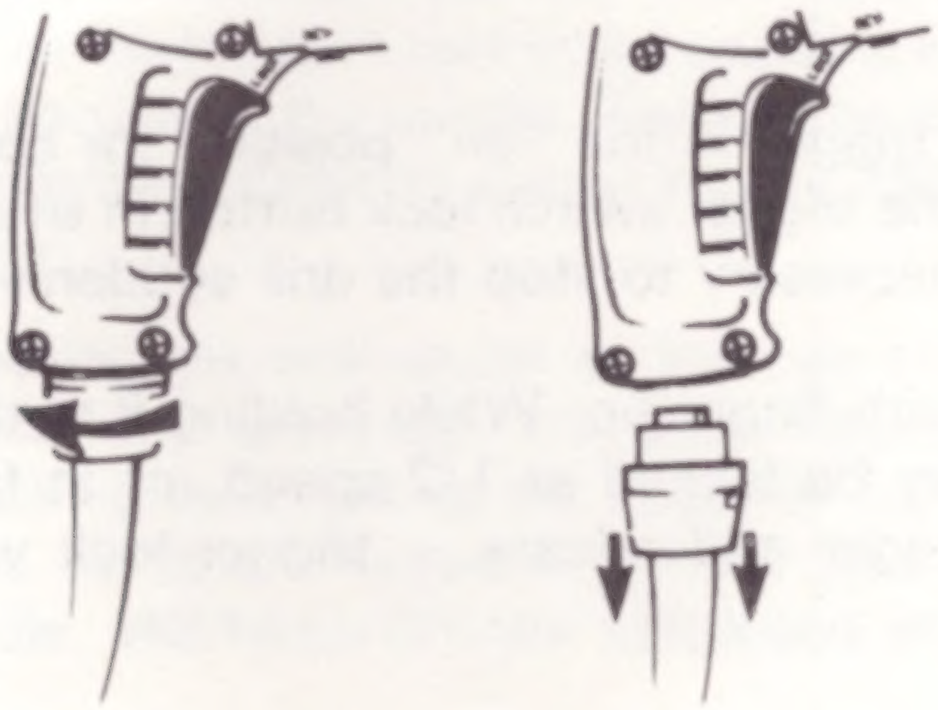
**Drills with Right Angle Drive Unit Attached** ◆ Same as 3300-1

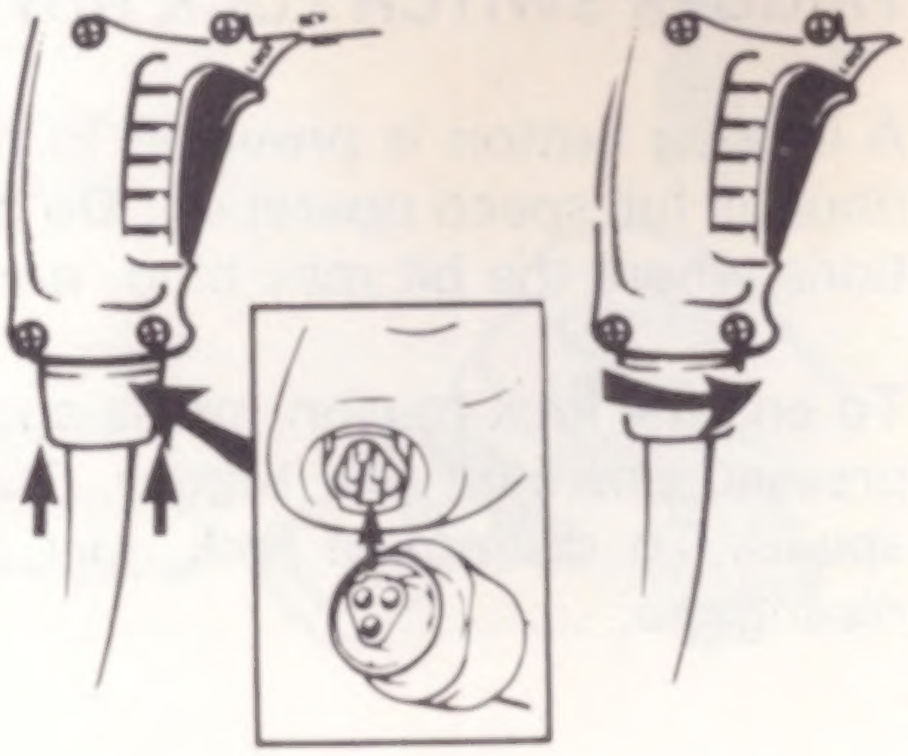
| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 0234-1 & R.A.D. HI 0-1275 RPM ◆ | 1-1/2" | 3/4" | 3/4" | 1" | 2-3/4" | 1/2" | 1-3/16" | 7/16" |
| 0234-1 & R.A.D. LO 0-567 RPM ◆ | 1-1/2" | 1-1/8" | 1-1/8" | 2-1/8" | 3-1/2" | 1/2" | 1-1/2" | 9/16" |
| 0244-1 & R.A.D. HI 0-900 RPM | 1-1/2" | 7/8" | 7/8" | 1-1/8" | 3-1/4" | 1/2" | 1-3/8" | 1/2" |
| 0244-1 & R.A.D. LO 0-400 RPM | 1-1/2" | 1-1/2" | 1-1/2" | 2-1/4" | 4" | 1/2" | 1-3/4" | 5/8" |

## QUIK-LOK CORD SETS

MILWAUKEE'S exclusive Quik-Lok cord sets provide instant field replacement or substitution. To remove cord, turn cord nut 1/4 turn to the left. Pull the cord set off.

To replace cord set, align connector keyways and push the connector in as far as it will go. Turn the cord nut 1/4 turn to the right to lock.





## SIDE HANDLE

A side handle is furnished with all models and can be mounted on either side of the diaphragm for right or left handed operation. Due to the high torque output of 1/2" Hole-Shooter Nos. 0234-1 and 0244-1, **THE SIDE HANDLE MUST ALWAYS BE USED.**

When using a right angle drive unit with the 1/2" Hole-Shooters, the No. 49-15-0200 side handle assembly must be used. This accessory includes a handle ring which clamps onto the bearing housing of the right angle drive unit. With this ring, the handle can rotate 360 degrees for use in any direction. Turn the handle to tighten or loosen the ring. When not using the right angle drive unit, screw the handle directly into the side of the diaphragm. Do not use the handle ring directly on the gear case of the tool.

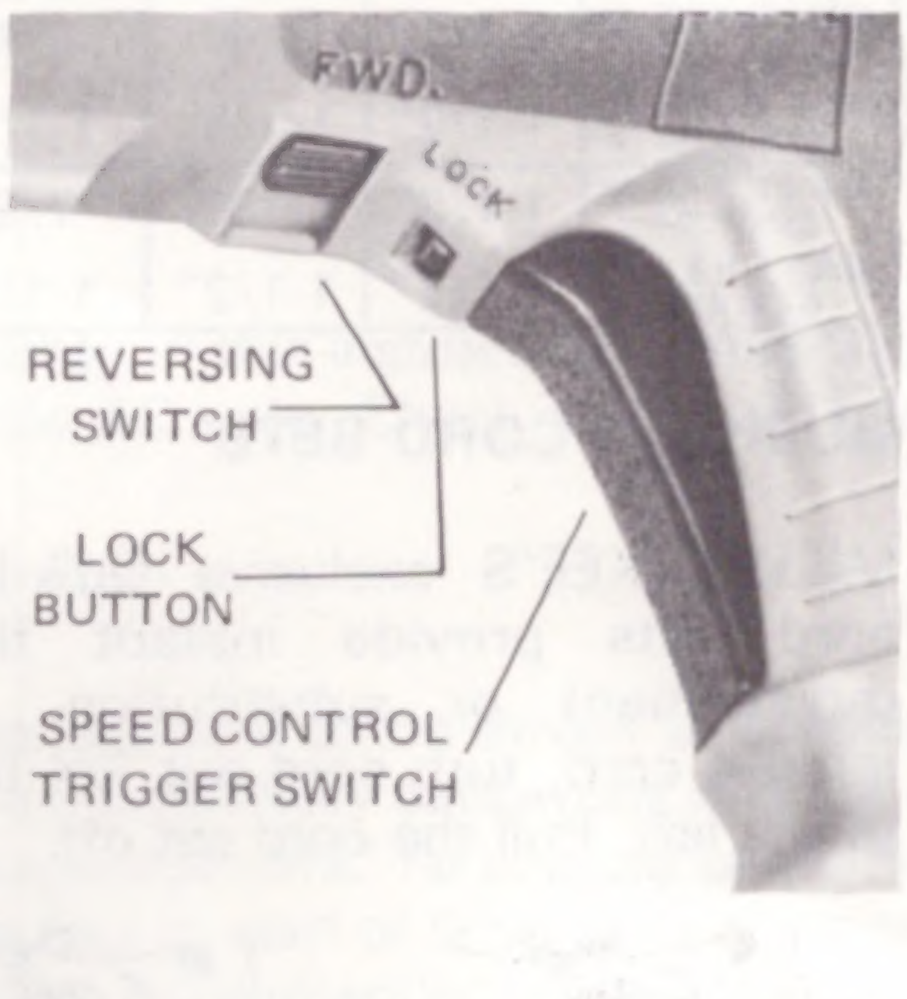
NOTE: Magnum Hole-Shooter side handles feature two end slots for extra leverage when removing tight handles. Simply insert a chuck key into the hollow side handle so the chuck key handles lay in the slots. Turn the key counter-clockwise to remove the handle. Do not use any force other than hand pressure to tighten a side handle. If a chuck key or other tool is used for added leverage when inserting a handle, the threads may become stripped requiring replacement of the diaphragm or side handle.

## TRIGGER SPEED CONTROL

Each Magnum Hole-Shooter is equipped with a trigger speed control switch which allows the tool to operate from 0 to full speed. Refer to the Accessory Capacity Chart on page 5 for the operating speed of your Hole-Shooter or Right Angle Drive unit. To increase drilling speeds, depress the trigger switch. The further the switch is depressed, the greater the speed.

## REVERSING

To reverse the tool, locate the reversing switch above the trigger switch. Push the switch to the left side of the tool for forward (clockwise) rotation of the chuck. Push the switch to the right side of the tool for reverse (counter clockwise) chuck rotation. An interlock prevents reversing the drill while the motor is running. However, permit the tool to come to a complete stop before reversing.




## TRIGGER SWITCH LOCK BUTTON

A locking button is provided to hold the trigger in the "on" position for continuous full speed operation. Do not use the trigger switch lock button in situations where the bit may bind, making it necessary to stop the drill suddenly.

To engage lock button, press against it with finger tip. While holding it in the pressed position, pull trigger. Trigger may be locked at 1/2 speed, or at full speed. To disengage lock, just press trigger and release — trigger lock will disengage.

## CHUCK

MILWAUKEE Magnum Hole-Shooters are equipped with an industrial, key type, geared chuck. When inserting bit, open chuck jaws wide enough to allow the bit to strike the bottom of the chuck. Be sure the shank of the bit and chuck jaws are clean. Dirt particles may cause the bit to line up improperly. Tighten jaws by hand to align bit before tightening with chuck key. Never use a wrench or other means than the chuck key to tighten or loosen the chuck. Do not use bits which are larger than the rated capacity of the drill. Gear damage or motor overload may result. For maximum drilling performance, be sure bits are properly sharpened before using.

## CHUCK REMOVAL

MILWAUKEE'S Magnum Hole-Shooter is equipped with a threaded spindle. A left-handed thread socket head screw is located inside the chuck to prevent unthreading when the tool is operated in the reverse direction.

Use stamped open end wrench (Cat. No. 49-96-4060) on spindle flats directly behind chuck, open chuck jaws as far as possible and remove the socket head screw located inside. It has a left-hand thread, and must be rotated clockwise to remove.

Rest tool firmly on workbench, positioning wrench on spindle flats to prevent spindle rotation in a counterclockwise direction (looking from front of tool). Insert chuck key or chuck remover bar in key hole of chuck. Strike chuck key or remover bar with hammer in counterclockwise direction. Chuck and spindle have right-hand threads. Once loosened, chuck may be removed by hand.

IMPORTANT: Always use wrench on spindle when removing or installing chuck. Severe impacts to gear train may cause gear damage. When replacing chuck always replace threaded socket head screw.

## ATTACHING RIGHT ANGLE DRIVE TO DRILL

**For No. 0234-1 and No. 0244-1 only.**

After removing the chuck from the drill, the double hex coupling should be slipped over the hex on the drill spindle. Loosen the clamping bolts on the clamping sleeve and push one end of the sleeve onto the bearing housing of the drill. Slide the Right Angle Drive Head into the other end of the sleeve and turn the drive head slightly in either direction so the hexagon hole in the coupling engages the hexagon portion of the spindle. Tighten the clamping bolts on the clamping sleeve to approximately 150 inch pounds of torque.

Attaching the drill chuck to the side designated "LOW" reduces the speed by 1/3 and increases torque 50%. Attaching the chuck to the opposite spindle increases the speed by 50%. Thread drill chuck on Right Angle Drive spindle. **INSTALL CHUCK LOCKING SCREW.**

## STARTING

Place the drill bit on work surface and apply firm pressure before starting. Punch marks or starter holes are unnecessary. Start the drill slowly to permit maximum control and to prevent the bit from wandering. When the hole has been properly started, increase the speed until maximum cutting efficiency is reached.

## STALLING

If the drill seems as if it is about to stall, increase the speed until it is operating properly. Do not force a stalled drill. If stalling occurs, reverse motor and remove the bit from the work and start again.

## SPEED

Increasing the speed of the drill permits increasing the amount of pressure applied; however, too much pressure will slow the drill bit and retard drilling efficiency. Too little pressure will cause the bit to slide over the work and cause excessive friction which will dull the point of the bit. See "Typical Applications" for recommended speeds under various conditions.

## TYPICAL APPLICATIONS

### Drilling Wood, Composition Materials, Plastic

Place the bit on the work and start slowly. Increase speed as drilling progresses. Low Speeds are recommended for plastics with a low melting point.

### Drilling Metals

Use high speed steel twist drills for faster cutting and longer bit life when drilling through hard metals. Press in the trigger far enough to maintain an efficient drilling speed in heavy metals, but keep the speed low enough to prevent burning the bit. Use a High Speed when drilling light metals with high speed steel bits and a Low Speed when drilling the same metals with carbon steel twist drills. Lubricate the bit with cutting oil when drilling iron or steel. Use a coolant when drilling non-ferrous metals such as copper, brass or aluminum.

### Drilling Masonry

When drilling masonry with carbide-tipped bits, Low Speeds are the most effective. Drilling soft masonry materials such as cinder black require little pressure. Hard materials like concrete, however, require more pressure. In either case, do not let the twist drill spin in the hole without cutting, as this will damage the bit.

### Driving Screws

This drill may be used for driving screws by inserting a screw-shooter bit in the chuck. After drilling pilot and shank holes, start the screw slowly and increase the speed as driving progresses. Set the screw by slowing to a stop. Do not run screws down at excessive speeds. If too much speed is used, the torque of the drill may twist the operator's wrist when the screw is set. Complete speed control must be maintained.

## MAINTENANCE

Always unplug tool before performing any maintenance. All servicing other than what is recommended in this manual must be done by a MILWAUKEE Service Center or Authorized Service Station.

## BRUSHES AND COMMUTATOR

UNPLUG TOOL

The MILWAUKEE Magnum tools are equipped with self-stopping brush carbons. The tool will automatically stop running when the carbons are worn down to 1/8" long to prevent damage to the armature.

To replace the brush carbons, unplug the tool and loosen the screw on the brush holder cartridge. The cartridge will back out about 1/8". Set the tool on the back of the handle and pull the cartridge out. If the carbons remain inside be sure to shake them out so that neither of them are in the tool.

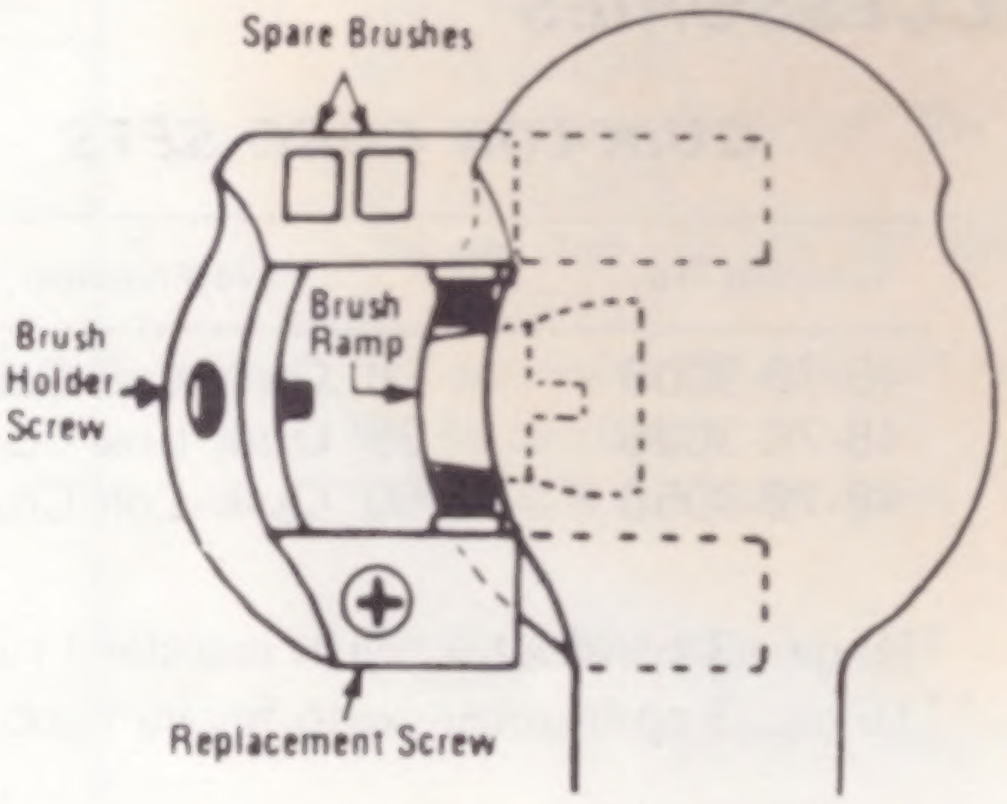
Always replace brushes in sets. A set of spare carbons are provided in the cartridge. Push the carbons out of the storage compartment. The carbon part numbers are shown on the cartridge and should be reordered immediately. Keeping a spare set of carbons within the storage compartment will insure possible field service and prevent expensive tool "down time".

To install new carbons, position them in the brush cartridge holder with the silver ends facing into the holder. Insert the cartridge in the tool so the brushes are resting on the ramp (See illustration). Push evenly on the top and bottom of the cartridge to align the terminals for proper connection. Tighten the brush holder screw gently. A replacement screw is also provided in the cartridge if the screw head is damaged by over-tourqueing. **NEVER USE A METAL SCREW AS A BRUSH HOLDER SCREW!** The brush holder screw part number is shown on the cartridge and should be reordered if the spare is used.

When checking or replacing brushes, check the commutator for wear. If it is badly worn, send the complete tool to a MILWAUKEE Service Center or Authorized Service Station for undercutting and dressing of the commutator.

**CAUTION!**

**TO AVOID ELECTRICAL SHOCK, UNPLUG TOOL FROM POWER SOURCE BEFORE REPLACING CARBONS OR PERFORMING ANY MAINTENANCE**



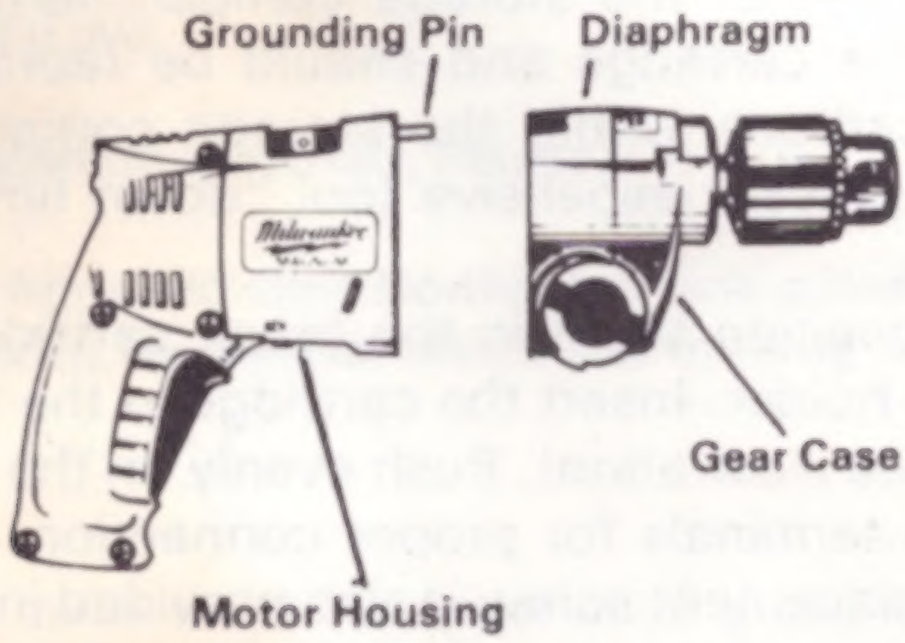
## LUBRICATION

UNPLUG TOOL

Proper and regular lubrication is an important factor in determining the useful life of your Heavy-Duty MILWAUKEE Magnum tool. All Magnum tools are lubricated at the factory. This lubrication should be sufficient for six months to one year depending upon the amount of use the tool receives. Tools used constantly on heavy-duty production jobs require lubrication more often. Tools that have not been used for extended periods of time should be relubricated before being put back in service.

To lubricate, unplug the tool and remove the three screws from the front of the gear case. Lift the gear case off and clean the old grease from the inside. Repack the gear case ⅔ to ¾ full of MILWAUKEE type "E" grease. Position the gear case to the diaphragm and motor housing and replace the three screws. Do not over torque these screws.

If the diaphragm loosens or if the armature comes out during the lubrication procedure, remove the brush holder cartridge and shake out BOTH of the loose brushes if they are still in the motor housing. Replace the armature and diaphragm being sure to insert the grounding pin on the motor housing into the hole on the Diaphragm (See illustration). Replace the brushes as described on page 9.




**USE ONLY IDENTICAL REPLACEMENT PARTS**

Parts List Available On Request.

When ordering, include Catalog No. and Serial No. of Tool.

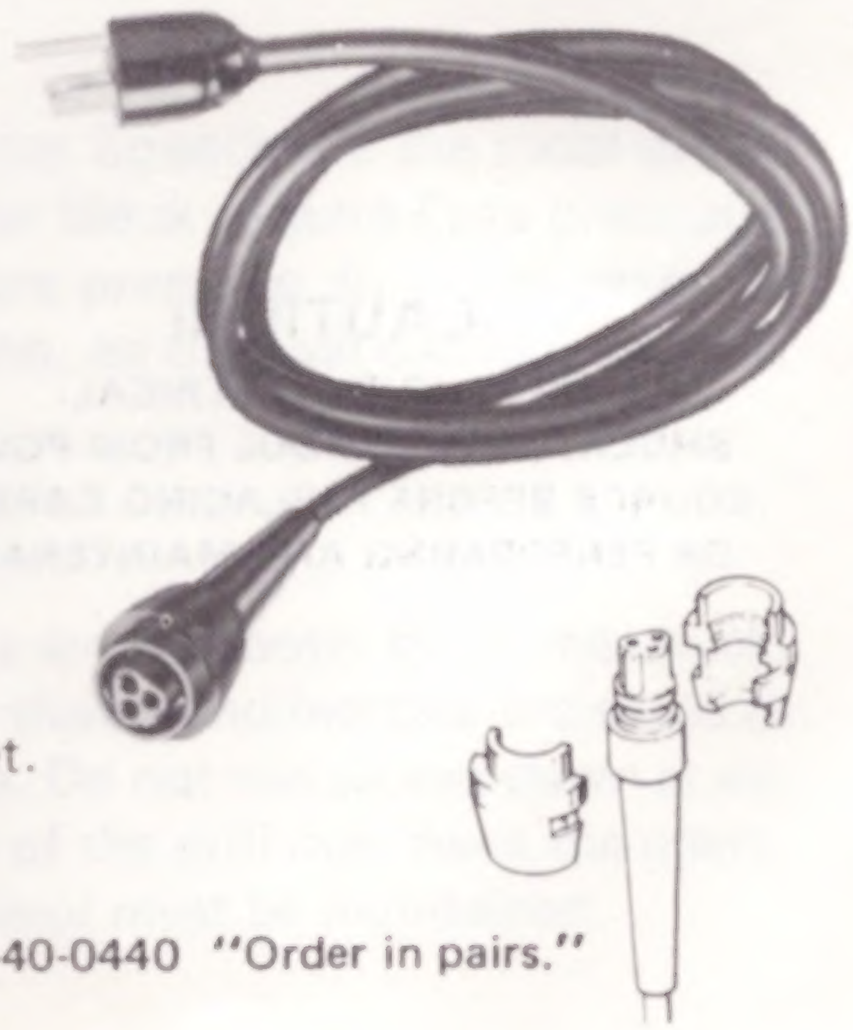
Write: MILWAUKEE ELECTRIC TOOL CORP. SERVICE DEPT.
13135 W. Lisbon Rd. Brookfield, WI. 53005

## *ACCESSORIES*

### *QUIK-LOK CORD SETS*

| Catalog No. | Description |
|---|---|
| 48-76-3008 | 8' Quik-Lok Cord Set* |
| 48-76-3025 | 25' Quik-Lok Cord Set** |
| 48-76-3050 | 50' Quik-Lok Cord Set** |

*18 ga., 3 conductor, with standard rubber jacket.
**16 ga., 3 conductor, with heavy rubber jacket.

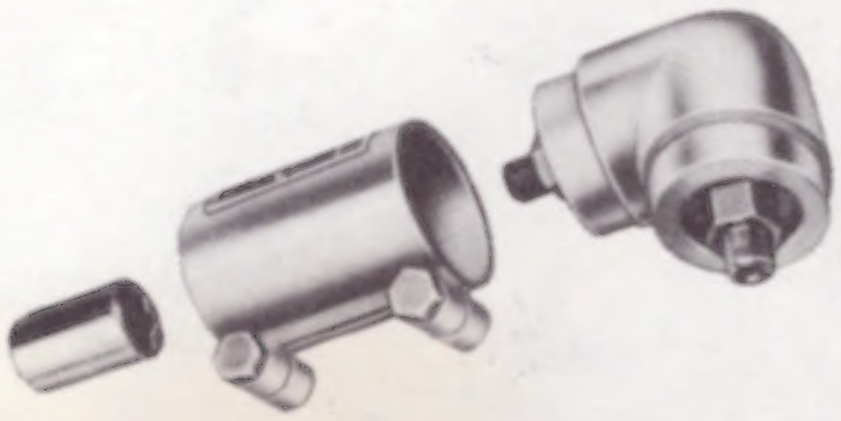


Cord Nut Half; Cat. No. 44-40-0440 "Order in pairs."

## *RIGHT ANGLE DRIVE UNIT*

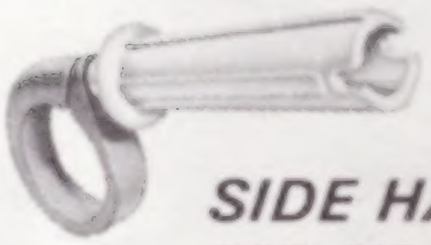
**For No. 0234-1 and No. 0244-1 only.**

**CAT. NO. 48-06-2871**



Used exclusively for drilling between joists, studding, in tight corners or in close quarters on machinery equipment. Provides two additional drilling speeds. Chuck transferred from drill to LOW spindle of right angle drive unit reduces drill's normal speed by 1/3 and increases drilling torque by 50%. Chuck transferred to opposite spindle or right angle unit increases speed by 50%.

This unit must be used with a side handle and the proper handle ring. See page 6 for the proper use of the side handle.



## *SIDE HANDLE*

**CAT. NO. 49-15-0200**

## *SIDE HANDLE*

**For use without Right Angle Drive Unit**

**CAT. NO. 49-15-0260**

## *RUBBER FLEX KEY HOLDER*

**CAT. NO. 48-66-4040**

## *TYPE "E" GREASE*

**CAT. NO. 49-08-4120**

## *STEEL CARRYING CASE*

**For Drill Only**

**CAT. NO. 48-55-0170**

## *STEEL CARRYING CASE*

**For Drill and Right Angle Drive**

**CAT. NO. 48-55-0200**

## *SCREWDRIVER BIT SET*

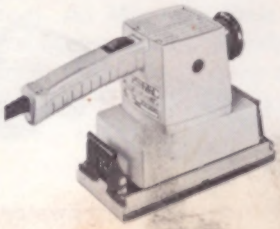
**CAT. NO. 48-30-0100**

Included in the set is 1 each of:

NO. 48-30-1500
#3 Phillips Bit 1/4" Hex
NO. 48-30-1510
#1 Phillips Bit 1/4" Hex
NO. 48-30-1520
#2 Phillips Bit 1/4" Hex
NO. 48-30-2600
Bit and Finder 6F-8R 1/4" Hex
NO. 48-30-2625
Bit and Finder 8F-10R 1/4" Hex
NO. 48-30-2650
Bit and Finder 10F-12R 1/4" Hex
NO. 48-32-2050
1/4" Sq. X 2" Socket Driver

NOTE: F = Flat Head
R = Round Head

## HEAVY-DUTY TOOLS FOR CONTRACTORS AND INDUSTRY

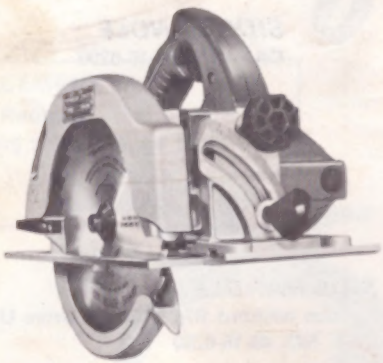


Milwaukee Amstar

## WARRANTY

Every MILWAUKEE Tool is thoroughly inspected and tested before leaving the factory. Should any trouble develop, return the complete tool prepaid to the Factory, Branch or nearest Authorized Service Station. If inspection shows the trouble is caused by defective workmanship or material, all repairs will be made without charge and the tool will be returned transportation prepaid.

This warranty does not apply where: (1) repairs or attempted repairs have been made by persons other than Factory, Branch or Authorized Service Station personnel; (2) repairs are required because of normal wear; (3) the tool has been misused or involved in an accident; (4) misuse is evident such as caused by overloading the tool beyond its rated capacity; (5) the tool has been used after partial failure or (6) the tool has been used with an improper accessory. No other warranty, written or verbal, is authorized.




**MILWAUKEE ELECTRIC TOOL CORPORATION**

13135 W. LISBON ROAD BROOKFIELD, WISCONSIN 53005



58-12-2006 0681 LITHO IN U.S.A.